

Conclusions: Our findings indicate a procedural success rate of 98% in performing same artery rTR catheterization with no major complications, providing support for the feasibility, efficacy and safety in performing rTR catheterizations.

Baseline Characteristics of 92 patients with Repeated Right Transradial Catheterization

	Percentage
Diabetes	21.7%
Hypertension	60.7%
Hyperlipidemia	77.2%
Current Smoker	43.5%
Previous CABG	2.2%
Male Gender	89.1%
Mean Age at the time of procedure	59.34 (range 34 - 84)

TCT-426

"Balloon angioplasty tamponade facilitated seal" of large diameter arteriotomy vascular access during Endovascular interventions, from the SIMPLIPHIDE Study (Single center IMPella LVAD supported Pci in High Risk group of patients—Detroit Medical Center Experience)

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Background: In recent years there has been an increase in the use of percutaneous Impella LVAD supported high risk coronary interventions. Currently this technique requires large diameter arteriotomy via Common Femoral Access (CFA) to allow equipment passage. Most commonly up to 14 French size sheaths are currently being inserted via CFA without a surgical cut-down. The limitation of large diameter arteriotomy has been closure of vascular access sites at the end of the procedure. A novel technique, named here; "Balloon angioplasty tamponade facilitated seal" of large diameter arteriotomy via contralateral access is described. At the time of 13-14 French sheath insertion, usually 2 Perclose sutures are deployed 90 degrees of each other which allows for sutures to provide a tighter seal. Post procedure the contralateral access serves as an access for introducing appropriate sized balloon to tamponade flow of blood in External Iliac Arteries (EIA) during the final deployment of sutures.

Methods: LIMA catheter is introduced over a wire via the contralateral access to the ipsilateral Common Iliac Artery (CIA). Glide wire 0.035 is then introduced to the ipsilateral CFA passed the sheath into the SFA. Next, a balloon of appropriate size is introduced to the level of External Iliac Artery. The balloon is then inflated completely occluding blood flow to the ipsilateral CFA while Perclose sutures are finally tied in the standard fashion. If there is residual bleeding post deflation, the balloon is advanced further across the arteriotomy site and re-inflated until arteriotomy is sealed.

Results: In the "Pre-Tamponade" era there was a total of 129 patients. Post procedure there were 8 groin hematomas, 1 pseudoaneurysm and 3 patients with TIMI major bleeding requiring transfusion. In the "Post-Tamponade" era there were 159 patients. Post procedure there were 2 hematomas, no pseudoaneurysm or major bleeding. ($p < 0.01$).

Conclusions: We can reduce major vascular complications including major bleeding, hematomas, pseudo-aneurysms in less time compared to conventional closure with "balloon angioplasty facilitated seal" technique, permitting convenient, efficacious, and safe hemostasis for high risk patients.

TCT-427

Transradial access for primary percutaneous coronary interventions in octogenarian patients with acute myocardial infarction. The ORA-STEMI (Octogenarians Radial Access in ST Elevation Myocardial Infarction) registry

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Background: Trans-radial access (TRA) in percutaneous coronary interventions reduce vascular complications. In ST-segment elevation myocardial infarction (STEMI) patients accepted for primary percutaneous coronary intervention (PPCI), there is also a reduction in major cardiovascular events and hemorrhagic complications. Despite recent published good results comparing TRA versus transfemoral in PPCI, limited data are available on elderly STEMI patients, where TRA access can be sometimes difficult and time consuming. We describe our experience in TRA approach for PPCI in the octogenarian STEMI patients and we compare these results with those obtained in younger subgroup.

Methods: In a single high volume PCI center (2000-2500 TRA elective PCI per year, of the 2655 patients accepted for PPCI between 2006 and June 2012, 304 were octogenarians (mean age: 83.6 ± 3.1 years). Of them, 240 (79%) were selected for TRA as first vascular approach. This group were compared with 2080 younger patients (mean age: 59.2 ± 12 years) undergoing TRA PPCI.

Results: The octogenarians group had higher rate of women (55% vs 17%; $p < 0.001$), hypertension (71.2% vs 45%; $p < 0.001$), peripheral arterial disease (7% vs 3.1%; $p = 0.004$) and Killip class 3-4 (7.5% vs 4.1%; $p = 0.03$). They had less height (161 ± 9.1 cm vs 168 ± 7.6 cm; $p < 0.001$), corporal surface (1.74 ± 0.1 m² vs 1.9 ± 1.1 m²; $p = 0.04$). 6F guide catheter was used in all patients. Femoral crossover rate was higher in octogenarians (6.6% vs 3.8%; $p = 0.01$) most of them due to radial artery tortuosity or calcification (75% Vs 80%). There were no differences in time from arrival to cath lab to arterial cannulation (17.4 ± 10 min vs 17.5 ± 7.2 min; $p = 0.08$) but octogenarians had longer intervals from arrival to cath lab to reperfusion (31.4 ± 14.1 min vs 25.8 ± 11.3 min; $p = 0.01$) and also longer fluoroscopy time (13.6 ± 8.8 min vs 10.4 ± 7.2 min; $p < 0.001$). There were no differences in procedural success rate (96.3% vs 97.8%).

Conclusions: Octogenarian patients can undergo successful PPCI for STEMI with radial approach for PPCI with minimal longer reperfusion and fluoroscopy time delays due to femoral crossover and difficult radial anatomy.

TCT-428

Radial access does not affect door to balloon time in patients undergoing primary PCI

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Background: Survival following STEMI is mainly related to reperfusion time. Radial and femoral approaches are both safe and effective for primary percutaneous coronary intervention (p-PCI). There is a strong evidence that transradial intervention reduces vascular complication as compared with transfemoral approach. Recently, the feasibility of transradial approach has been also reported in the setting of acute myocardial infarction. However, there is still concern that the difficulties of obtaining vascular access owing to the smaller size of the radial artery and in learning the technique of transradial intervention lead to delay in reperfusion. Thus, aim of our study is to evaluate the efficacy and safety of radial versus femoral access for STEMI patients undergoing primary percutaneous coronary intervention.

Methods: From 2008 to 2011, 874 consecutive patients underwent to p-PCI for STEMI to our Institution. In all cases the exact procedural times including D2B, access time in Cath Lab, time of arterial puncture (as the interval between access in cath lab and the sheath introduction) and inflation of the balloon (as the interval between sheath introduction and guidewire crossing the culprit lesion) were recorded.

Results: In the whole population the D2B time was 103 ± 67 minutes with a median of 87 min. 649 patients (74.2%) were treated by a transradial approach whereas in the remaining cases a femoral route was preferred due to a worst killip class or cardiogenic shock at presentation. Mean D2B time in the transradial group was 101.7 ± 65.6 minutes with a median of 85 min, whereas in the transfemoral group was 106.9 ± 71.3 min with a median of 92 min ($p = ns$). Mean time of arterial puncture was 10.3 ± 6.6 min with a median of 10 min for radial group and 12.4 ± 4.9 with a median of 12 min for femoral group ($P < 0.001$). The mean time of balloon inflation was 18.8 ± 13 with a median of 16 min for radial access and 21.9 ± 13.5 with a median of 17 min for femoral access ($P < 0.01$).

Conclusions: Our data suggest that the radial approach does not lead to a lengthening of the D2B time suggesting the usefulness of this approach in STEMI patients without cardiogenic shock at presentation.